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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/033,769

12/27/2001

Shuang Liu

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23914

7590

03/26/2003

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EXAMINER

JONES, DAMERON

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 03/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n No.

10/033,769

Applicant(s)

LIU, SHUANG

Examiner

D. L. Jones

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-110 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-110 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

Art Unit: 1616

## RESTRICTION INTO GROUPS

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 3, 4, 15, 17, 18, 27, 29, 30, 39, 41, 42, 51, 53, 54, 63-86, and 92-110, drawn to a tripodal chelant wherein A = CR1, classified in class 534, subclass 7+.
  - II. Claims 1, 3, 15, 17, 27, 29, 39, 41, 51, 53, 63-86, and 92-110, drawn to a tripodal chelant wherein A = SiR1, classified in class 534, subclass 7+.
  - III. Claims 1, 3, 15, 17, 27, 29, 39, 41, 51, 53, 63-86, and 92-110, drawn to a tripodal chelant wherein A = GeR1, classified in class 534, subclass 7+.
  - IV. Claims 1, 3-11, 15, 17-25, 27, 29-37, 39, 41-49, 51, 53-61, 63-86, and 92-110, drawn to a tripodal chelant wherein A = N, classified in class 534, subclass 7+.
  - V. Claims 1, 3-7, 15, 17-21, 27, 29-33, 39, 41-45, 51, 53-57, 63-86, and 92-110, drawn to a tripodal chelant wherein A = P or P(O), classified in class 534, subclass 7+.
  - VI. Claims 1, 3, 15, 17, 27, 29, 39, 41, 51, 53, 63-86, and 92-110, drawn to a tripodal chelant wherein A = [C(L)R2(CR3R4)a]b, classified in class 534, subclass 7+.
  - VII. Claims 1, 3, 4, 5, 12-15, 17-19, 26-31, 38, 39, 41-43, 50, 51, 53-55, 62-86, and 92-110, drawn to a tripodal chelant wherein A = [N(L)C(W)(CR5R6)c]d, classified in class 534, subclass 7+.

Art Unit: 1616

- VIII. Claims 1, 3, 15, 17, 27, 29, 39, 41, 51, 53, 63-86, and 92-110, drawn to a tripodal chelant wherein A = [OC(W)C(L)R79CR8R9)e]f, classified in class 534, subclass 7+.
- IX. Claims 1, 3, 15, 17, 27, 29, 39, 41, 51, 53, 63-86, and 92-110, drawn to a tripodal chelant wherein A = {[NR10C(W)C(L)R11(CR12R13)g]h[NR14C(W)(CR15R16)i]j}, classified in class 534, subclass 7+.
- X. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 52, 54, 63-86, and 92-110, drawn to a tetrapodal chelant wherein A = CR1, classified in class 534, subclass 7+.
- XI. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 52, 63-86, and 92-110, drawn to a tetrapodal chelant wherein A = SiR1, classified in class 534, subclass 7+.
- XII. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 52, 63-86, and 92-110, drawn to a tetrapodal chelant wherein A = GeR1, classified in class 534, subclass 7+.
- XIII. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein A = N, classified in class 534, subclass 7+.
- XIV. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein A = P or P(O), classified in class 534, subclass 7+.

Art Unit: 1616

- XV. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein  $A = [C(L)R_2(CR_3R_4)a]b$ , classified in class 534, subclass 7+.
- XVI. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein  $A = [N(L)C(W)(CR_5R_6)c]d$ , classified in class 534, subclass 7+.
- XVII. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein  $A = [OC(W)C(L)R_7R_9CR_8R_9]e]f$ , classified in class 534, subclass 7+.
- XVIII. Claims 1, 2, 15, 16, 27, 28, 39, 40, 51, 63-86, and 92-110, drawn to a tetrapodal chelant wherein  $A = \{[NR_{10}C(W)C(L)R_{11}(CR_{12}R_{13})g]h[NR_{14}C(W)(CR_{15}R_{16})i]j\}$ , classified in class 534, subclass 7+.
- XIX. Claims 87-89 and 91, drawn to the formula in independent claim 87 wherein  $A = CR_1$ , classified in class 534, subclass 7+.
- XX. Claims 87-89 and 91, drawn to the formula in independent claim 87 wherein  $A = SiR_1$ , classified in class 534, subclass 7+.
- XXI. Claims 87-91, drawn to the formula in independent claim 87 wherein  $A = GeR_1$ , classified in class 534, subclass 7+.
- XXII. Claims 87-91, drawn to the formula in independent claim 87 wherein  $A = N$ , classified in class 534, subclass 7+.

Art Unit: 1616

XXIII. Claims 87-89 and 91, drawn to the formula in independent claim 87

wherein A = P or P(O), classified in class 534, subclass 7+.

XXIV. Claims 87-89 and 91, drawn to the formula in independent claim 87

wherein A = [C(L)R2(CR3R4)a]b, classified in class 534, subclass 7+.

XXV. Claims 87-91, drawn to the formula in independent claim 87 wherein A =

[N(L)C(W)(CR5R6)c]d, classified in class 534, subclass 7+.

XXVI. Claims 87-89 and 91, drawn to the formula in independent claim 87

wherein A = [OC(W)C(L)R79CR8R9)e]f, classified in class 534, subclass 7+.

XXVII. Claims 87-89 and 91, drawn to the formula in independent claim 87

wherein A = {[NR10C(W)C(L)R11(CR12R13)g]h[NR14C(W)(CR15R16)i]j},  
classified in class 534, subclass 7+.

**Note:** Claims appearing in more than one group will only be examined to the extent that they read on the elected group.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I-XXVII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the inventions are unrelated because the products and uses thereof appearing in each group are structurally different. Thus, the groups do not have a

common core. Also, a search of one group would neither anticipate nor render obvious another group. Hence, the inventions are separate and distinct. Furthermore, a search over the full scope of the claims would require the Examiner to conduct numerous searches of the prior art since groups are structurally different.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

#### **ELECTION OF SPECIES FOR SEARCH PURPOSES**

4. Claims 1-110 are generic to a plurality of species comprising chelates as set forth in independent claims 1 and 87. The chelates comprise the variable A which results in structurally different species (see the Groups above). Applicant is respectfully requested to elect a single disclosed species for search purposes, even though this requirement is traversed.

**Note:** Applicant is respectfully requested to elect a single disclosed species from within the elected group for search purposes. The species should include (if applicable) identification of all variables associated with the chelate, in addition to a radionuclide, a heavy metal, and/or a biologically active molecule.

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

Art Unit: 1616

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Due to the complexity of the restriction requirement a telephone call was not made to request an oral election to the above restriction requirement.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (703) 308-4640. The examiner can normally be reached on Mon.-Fri. (alternate Mon.), 6:45 a.m. - 4:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose' Dees can be reached on (703) 308- 4628. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4556 for regular communications and (703) 308-4556 for After Final communications.



Art Unit: 1616

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.



D. L. Jones  
Primary Examiner  
Art Unit 1616

March 24, 2003